



## Radiator Cleaner

LIQUI MOLY GmbH

Revised on: 12.04.99 Date of issue 14.04.99 0

**01. Identification of the substance / preparation and of the company**

**Company:** LIQUI MOLY GmbH  
 Jerg-Wieland-Straße 4  
 D-89081 Ulm-Lehr

**Phone:** 0731-1420-0

**Telefax:** 0731-1420-88

**Emergency phone:** 0049-731-1420-0

**02. Composition / Information on ingredients**

Substance:	EINECS	CAS	Range [%]	Symbol / R-phr.
anionic surfactant	296-986-7	93165-97-0	3,0 - <5,0	C 34
ethanediol	203-473-3	107-21-1	10,0 - <12,5	Xn 22
fatty alcohol polyglycoether 6-15 EO			7,0 - <10,0	Xn 22 36/38
Sulfonic acids, C13-C17-sec-Alkane-, sodium salts	288-330-3	85711-69-9	3,0 - <5,0	Xi 36

**03. Hazards identification**

No special hazards have to be mentioned.

**04. First aid measures****General information**

Change soaked clothing.

**Inhalation**

Not applicable.

**Skin contact**

In case of contact with skin wash off with warm water. Consult a doctor if skin irritation persists.

**Eye contact**

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

**Ingestion**

Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Refer for medical treatment.

**Advice to doctor / treatment**

Treat symptomatically.

**05. Fire-fighting measures****Suitable extinguishing media**

Product itself is non-combustible, fire extinguishing method of surrounding areas must be considered.

**Extinguishing media that must not be used for safety reasons**

Not applicable.

**Special exposure hazards arising from the substance or preparation itself or combustion products.**

Risk of formation of toxic pyrolysis products.

**Special protective equipment for firefighters**

Use independent breathing apparatus.

**Additional information**

Not applicable.

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**06. Accidental release measures****Personal precautions**

High risk of slipping due to leakage/spillage of product. Use personal protective clothing.

**Environmental precautions**

Do not discharge into the drains/ surface waters/ groundwater. Prevent spread over a wide area (e.g. by containment or oil barriers).

**Methods for cleaning up/taking up**

Take up residues with dilute acetic acid. Dispose of absorbed material in accordance with the regulations.

**07. Handling and storage****Advice on safe handling**

No special measures necessary if used correctly.

**Advice on protection against fire and explosion**

No special measures necessary.

**Requirements for storage rooms and vessels**

Prevent penetration into the ground.

**Advice on storage compatibility**

Not applicable.

**Further information on storage conditions**

Keep container in a well-ventilated place. Keep container tightly closed.

**08. Exposure controls / personal protection****Additional advice on system design****Ingredients with occupational exposure limits to be monitored**

Substance:	EINECS	CAS	Range [%]	Value:
ethanediol	203-473-3	107-21-1	10,0 - <12,5	MAK: 10ppm H,Y 1996

**Respiratory protection**

None.

**Hand protection**

Protective gloves.

**Eye protection**

Protective goggles.

**Skin protection**

Not applicable.

**General protective measures**

Avoid contact with eyes and skin.

**Hygiene measures**

Use barrier skin cream. Wash hands before breaks and after work.



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**09. Physical and chemical properties**

Form:	Liquid.	Lower explosion limit:	-
Colour:	Yellow.	Upper explosion limit:	-
Odour:	Characteristic.	Combustible properties:	No
pH-value:	9,7	Vapour pressure, 20°C:	-
Melting point [°C]:	-	Density [g/cm³]:	1,031 (20°C)
Boiling point [°C]:	100	Solubility in water:	Miscible.
Flash point [°C]:	Not applicable.	Partition coefficient: n-octanol / water:	-
Flammability:		Viscosity:	7,3 mm²/s (40°C)
Autoignition temperature:	-		

**10. Stability and reactivity****Hazardous reactions**

Reactions with strong oxidizing agents.

**Hazardous decomposition products**

No hazardous decomposition products known.

**11. Toxicological information**

Acute oral toxicity LD50 :

Acute dermal toxicity LD50 :

Acute inhalational toxicity LC50 :

Irritant effect on eye

Experiences made in practice

None.

**General remarks**

No toxicological data are available. The product was classified on the basis of the calculation procedure of the preparation directive (88/379/EEC).

**12. Ecological information****Degradability according to law of wash and cleansing agent (WRMG)**

The product is readily biodegradable to OECD criteria.

**Fish toxicity****Behaviour in sewage plant**

The product can cause foaming in sewage treatment plants.

**AOX-advice**

Not applicable.

**Contains following heavy metals and compounds of 76/464/EEG**

Not applicable.

**General information**

Ecological data are not available.

**13. Disposal considerations****Disposal / Product**

May be reused after reconditioning. Disposal in an incineration plant in accordance with the regulations of the local authorities.

**Disposal / Contaminated packaging**

Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.

Waste no. 070701

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**14. Transport information**

<b>Land transport ADR/RID</b>	Class	---	Hazard-no.:	---	UN-No.:	---
<b>inside-Packing:</b>	---	<b>outside-Packing:</b>	---			
<b>Inscriptions:</b>	---		<b>Label:</b>	---		
	Rn 10 011: ---					
<b>Proper Shipping Name:</b>	no dangerous goods					

**Marine transport / IMDG**

Class:

UN-Nr.

Packing group:

EmS

MFAG

Marine pollutant

Proper shipping name: no dangerous good

**Air transport / ICAO / IATA-DGR**

Class:

UN- / ID-Nr.

Packing group:

Proper shipping name: no dangerous good



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**15.01 Regulatory information**

**Labelling**

Does not require a hazard warning label, but the normal safety precautions for handling chemicals must be observed.

**Hazard symbols**

**R phrases**

**S phrases**

**Special labelling for certain preparations**

**15.02 National regulations (german only)**

Restriction of occupation	Not applicable.
Decree for case of interference, observe limits	Not applicable.
Classification according to VbF	Is not subject to the regulations on flammable substances.
Classification according to TA-Luft	—
Water hazard class	2
Water hazard class / source	

**Other regulations, restrictions and prohibition regulations**

**16. Other informations:**

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